

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) An interactive voice response system comprising:
an application repository having application logic and information stored thereon, said application logic for defining at least one voice response application;
a communication device for establishing at least one connection with said application repository, wherein said application repository transmits said application logic and a set of potentially responsive information to said communication device responsive to one of said established connections; and
a processor within said communication device to locally execute said transmitted application logic defining at least one voice response application providing responsive information to requests made in said ~~executing~~ local execution, wherein said responsive information is obtained from said application repository when said set of potentially responsive information does not contain said responsive information.
2. (Currently Amended) The system of claim 1 further comprising:
a data network interface in communication with said application repository for retrieving said responsive information.
3. (Original) The system of claim 2 wherein said data network is the Internet.
4. (Previously Presented) The system of claim 1 wherein said communication device establishes another connection for transmitting another application in the application repository responsive to said information retrieved by said application repository, said another application in the application repository having another application logic stored thereon defining at least one other voice response application for execution on said communication device.
5. (Previously Presented) The system of claim 4 further comprising:
translation logic for converting said retrieved information and applications into a format compatible with said application logic.

6. (Previously Presented) The system of claim 1 wherein said application repository divides said at least one voice response application into one or more selectively-sized, executable sub-modules, wherein a size is selected responsive to memory limitations of said communication device.

7. (Original) The system of claim 6 wherein said communication device obtains one of said one or more sub-modules for execution.

8. (Original) The system of claim 7 wherein said communication device obtains a next one of said one or more sub-modules after completing execution of said one sub-module.

9. (Previously Presented) The system of claim 1 further comprising:
a user interface disposed on said communication device for accepting input from a user responsive to said transmitted application logic defining at least one voice response application.

10. (Canceled)

11. (Previously Presented) The system of claim 9 wherein said processor processes said user input locally

12. (Original) The system of claim 11 further comprising voice recognition logic.

13. – 14. (Canceled)

15. (Original) The system of claim 12 wherein said voice recognition logic is disposed permanently on said communication device.

16. (Canceled)

17. (Previously Presented) The system of claim 12 wherein said voice recognition logic is disposed on said application repository and wherein said voice recognition logic receives digital voice packets from said communication device.

18. (Previously Presented) The system of claim 9 further comprising:
an audio transducer disposed on said communication device for playing aural segments to said user in accordance with the operation of said transmitted application logic defining at least one voice response application; and
a display disposed on said communication device for presenting visual information to said user in accordance with the operation of said transmitted application logic defining at least one voice response application.
19. – 20. (Canceled)
21. (Previously Presented) The system of claim 18 wherein information responsive to said transmitted application logic defining at least one voice response application is presented on said communication device according to a set of preferences preselected by said user.
22. – 25. (Canceled)
26. (Previously Presented) The system of claim 9 wherein said communication device initiates said application repository connection over a voice connection and receives said information and application logic over a data connection.
27. (Original) The system of claim 26 wherein said voice connection comprises a circuit switched network and said data connection comprises a packet switched network.
28. (Previously Presented) The system of claim 9 wherein said communication device communicates with said application repository using a blended voice and data network.
29. (Canceled)
30. (Original) The system of claim 1 wherein said application logic comprises VoiceXML.

31. (Previously Presented) A method for providing an interactive voice response application to a user on a communication unit comprising the steps of

- establishing an initial connection between said communication unit and a multimedia application repository;
- downloading software code defining said interactive voice response application and a set of potentially responsive information to said communication unit from said multimedia application repository;
- executing said software code on said communication unit to run said downloaded interactive voice response application; and
- providing responsive information to said user responsive to requests made pursuant to said downloaded interactive voice response application;
- obtaining said responsive information from said multimedia application repository when said responsive information is not found in said set of potentially responsive information.

32. – 34. (Canceled)

35. (Previously Presented) The method of claim 31 wherein said multimedia application repository obtains said responsive information from one of an internal database and a data network.

36. (Original) The method of claim 35 further comprising the step of:

- converting said responsive information into a format compatible with said interactive voice response application.

37. (Previously Presented) The method of claim 31 wherein said downloading step further comprises the step of:

- dividing said software code into selectively-sized segments responsive to a memory capacity of said communication unit; and
- downloading said selectively-sized segments to said communication unit.

38. (Previously Presented) The method of claim 31 further comprising the step of: receiving input from said user responsive to voice messages played by said downloaded interactive voice response application.

39. – 44. (Canceled)

45. (Previously Presented) The method of claim 31 further comprising the step of: reestablishing a subsequent connection between said communication unit and said multimedia application repository to retrieve said responsive information.

46. (Previously Presented) The method of claim 37 further comprising the step of: downloading a next selectively-sized segment after execution of said downloaded transmitted one of said selectively-sized segments.

47. (Canceled)

48. (Previously Presented) The method of claim 31 wherein said initial connection is implemented over a voice network and said downloading step is implemented over a data network.

49. (Previously Presented) The method of claim 31 further comprising the step of: establishing communication between said user and an operator responsive to a request made pursuant to said downloaded interactive voice response application.

50. – 51. (Canceled)

52. (Original) The method of claim 49 wherein said communication is established using a combination of a voice network and a data network.

53. (Previously Presented) A system for implementing an interactive voice response application on a communication device comprising:

a central repository in communication with a data network;

extensible application code disposed on said central repository, said code defining an interactive voice response application;

memory disposed on said communication device for storing a copy of said extensible application code and a set of potentially responsive information, wherein said communication device downloads said copy and said set of potentially responsive information from said central repository using said data network; and

a processor disposed on said communication device for executing said copy of said extensible application code defining said interactive voice application substantially independent from said central repository, wherein said interactive voice response application provides responsive information to requests made during operation of said interactive voice response application;

wherein said responsive information is obtained from said central repository when said responsive information is not contained in said set of potentially responsive information.

54. – 59. (Canceled)

60. (Original) The system of claim 53 further comprising voice processing logic to process input spoken by a user into said communication device.

61. – 64. (Canceled)

65. (Previously Presented) The system of claim 53 further comprising:

application management software disposed on said central repository for dividing said extensible application code into selectively-sized sub-modules, wherein said selected size is determined from memory limitations of said communication device.

66. (Original) The system of claim 65 wherein said communication device downloads a next sub-module after completing execution of a current sub-module.

67. (Previously Presented) The system of claim 53 wherein said communication device initiates said download of said copy by communicating with said central repository using a voice network.

68. (Previously Presented) The system of claim 53 further comprising:
a connection resource for connecting a user to an agent responsive to said requests made in executing said interactive voice application, wherein said connection allows live voice communication between said user and said agent.

69. (Canceled)

70. (Original) The system of claim 68 wherein said connection resource connects said user and said agent using a combination of said data network and a voice network.

71. – 76. (Canceled)

77. (Previously Presented) A method for providing an interactive voice response application to a user on a communication unit comprising the steps of:

launching a connection between said communication unit and a multimedia application repository;

downloading to said communication unit from said multimedia application repository, application code defining a downloaded interactive voice response application and a set of potentially responsive information;

running said application code on said communication unit to execute said downloaded interactive voice response application so that said user can have a voice response interactive session controlled, at least in part, by said downloaded application code; and

obtaining responsive information from said multimedia application repository when said responsive information is not found in said set of potentially responsive information.

78. (Canceled)

79. (Previously Presented) The method of claim 77 wherein said communication unit retrieves said responsive information from one of an internal database to said communication unit and an external database to said communication unit.

80. (Previously Presented) The method of claim 77 wherein said connection between said communication unit and said multimedia application repository comprises a data socket connection.

81. (Previously Presented) A method for obtaining multimedia information on a communication device using a locally executed interactive voice application, said method comprising the steps of:

- initiating said communication device to receive an interactive voice response session;

- receiving application logic defining an interactive voice application from an application repository into said communication device to locally execute said interactive voice response session;

- receiving a set of potentially responsive multimedia information to said communication unit from said application repository;

- observing multimedia prompts on said communication device provided by said interactive voice response session;

- providing said interactive voice response session multimedia input responsive to said observed multimedia prompts, wherein said multimedia input is processed by said communication device; and

- observing responsive multimedia information on said communication device provided by said interactive voice response session responsive to said processed multimedia input, wherein said responsive multimedia information is obtained from said application repository when said responsive multimedia information is not found in said set of potentially responsive multimedia information.

82. (Original) The method of claim 81 wherein said multimedia prompts comprise one of aural segments presented over an audio transducing mechanism of said communication device and visual information presented using a visual display of said communication device.

83. (Original) The method of claim 81 wherein said multimedia prompts comprise a combination of aural segments presented using an audio transducing mechanism and visual information presented using a visual display.

84. (Original) The method of claim 81 wherein said multimedia input is chosen from the group comprising:

speech;
dual tone multiple frequency (DTMF) signals; and
text.

85. (Original) The method of claim 81 wherein said multimedia information comprises one of aural segments presented over an audio transducing mechanism of said communication device and visual information presented using a visual display of said communication device.

86. – 90. (Canceled)

91. (Original) The method of claim 81 further comprising the step of selectively forwarding said multimedia information to another communication device.

92. (Previously Presented) An interactive voice response system comprising:
an application repository having information stored thereon;
a communication device for establishing at least one connection with said application repository, wherein a set of potentially responsive information and an application logic is downloaded to said communication device, said application logic for defining at least one voice response application and for providing responsive information to requests made pursuant to said at least one voice response application; and

a processor within said communication device to execute said application logic and locally execute said at least one voice response application, wherein said responsive information is obtained from said application repository when said set of potentially responsive information does not contain said responsive information.

93. (Previously Presented) The system of claim 92 wherein said application repository downloads said application logic to said communication device responsive to one of said established at least one connection.

94. (Canceled)

95. (Currently Amended) The system of claim 92 wherein said communication device establishes another connection with another application in the application repository responsive to said responsive information retrieved by said application repository, said another application in the application repository having another application logic stored thereon defining at least one other voice response application for execution on said communication device, and wherein said ~~another~~ application repository downloads said another application in the application logic to said communication device.

96. (Previously Presented) The system of claim 92 further comprising:
translation logic for converting said responsive information into a format compatible with said application logic.

97. (Previously Presented) The system of claim 93 wherein said application repository divides said at least one voice response application into one or more selectively-sized, executable sub-modules, wherein said size is selected responsive to memory limitations of said communication device.

98. (Previously Presented) The system of claim 97 wherein said communication device obtains one of said one or more sub-modules for execution.

99. (Previously Presented) The system of claim 98 wherein said communication device obtains a next one of said one or more sub-modules after completing execution of said one sub-module.

100. (Previously Presented) The system of claim 92 further comprising:
a user interface disposed on said communication device for accepting input from a user responsive to said at least one voice response application.

101. (Previously Presented) The system of claim 100 wherein said processor processes said user input locally according to said at least one voice response application.

102. (Previously Presented) The system of claim 101 further comprising voice recognition logic.

103. (Previously Presented) The system of claim 102 wherein said voice recognition logic is disposed on said application repository and wherein said voice recognition logic receives digital voice packets from said communication device.

104. (Previously Presented) The system of claim 100 further comprising:
an audio transducer disposed on said communication device for playing aural segments to said user in accordance with the operation of said at least one voice response application; and

a display disposed on said communication device for presenting visual information to said user in accordance with the operation of said at least one voice response application.

106. (Previously Presented) The system of claim 100 wherein said communication device initiates said at least one connection with said application repository over a voice connection and receives said responsive information and application logic over a data connection.

107. (Previously Presented) The system of claim 106 wherein said voice connection comprises a circuit switched network and said data connection comprises a packet switched network.

108. (Previously Presented) The system of claim 100 wherein said communication device communicates with said application repository using a blended voice and data network.

109. (Previously Presented) The system of claim 92 wherein said application logic comprises VoiceXML.

110. (Previously Presented) A method for providing an interactive voice response application to a user on a communication unit comprising the steps of:

establishing an initial connection between said communication unit and a multimedia application repository;

transmitting software code defining said interactive voice response application and a set of potentially responsive information to said communication unit from said multimedia application repository;

executing software code on said communication unit to run said transmitted interactive voice response application; and

providing responsive information to said user responsive to requests made pursuant to said transmitted interactive voice response application, wherein said responsive information is obtained from said multimedia application repository when said responsive information is not found in said set of potentially responsive information.

111. –114. (Canceled)

115. (Previously Presented) The method of claim 114 wherein said multimedia application repository obtains said responsive information from one of an internal database and a data network.

116. (Previously Presented) The method of claim 115 further comprising the step of:

converting said responsive information into a format compatible with said interactive voice response application.

117. (Previously Presented) The method of claim 111 wherein said transmitting step further comprises the step of:

dividing said software code into selectively-sized segments responsive to a memory capacity of said communication unit.

118. (Previously Presented) The method of claim 110 further comprising the step of:

receiving input from said user responsive to voice messages played by said interactive voice response application.

119. (Previously Presented) The method of claim 118 further comprising the step of processing said voice input.

120. (Previously Presented) The method of claim 119 wherein said voice processing is done by said communication device.

121. (Previously Presented) The method of claim 114 further comprising the step of:

reestablishing a subsequent connection between said communication unit and said multimedia application repository to retrieve said responsive information.

122. (Previously Presented) The method of claim 117 further comprising the step of:

transmitting a next selectively-sized segment after execution of said transmitted segment.

123. (Previously Presented) The method of claim 111 wherein said initial connection is implemented over a voice network and said transmitting step is implemented over a data network.

124. (Previously Presented) The method of claim 110 further comprising the step of:

establishing communication between said user and an operator responsive to a request made pursuant to said interactive voice response application.

125. (Previously Presented) The method of claim 124 wherein said communication is established using a combination of a voice network and a data network.

126. (Previously Presented) A system for obtaining multimedia information on a communication device using a locally executed interactive voice application, said system comprising:

means for initiating said communication device to receive an interactive voice response session, wherein said interactive voice response session is defined by application logic received on said communication device;

means for downloading a set of potentially responsive information to said communication device from an application repository;

means for displaying multimedia prompts on said communication device provided by said interactive voice response session;

means for receiving multimedia input responsive to said multimedia prompts, wherein said multimedia input is processed by said application logic on said communication device; and

means for presenting responsive multimedia information on said communication device provided by said interactive voice response session responsive to said processed multimedia input, wherein said responsive multimedia information is retrieved from said application repository when said responsive multimedia information is not found in said set of potentially responsive information.

127. (Previously Presented) The system of claim 126 further comprising:

means for receiving said application logic into said communication device to locally execute said interactive voice response session.

128. (Previously Presented) The system of claim 126 wherein said multimedia prompts comprise one of aural segments presented over an audio transducing mechanism of said communication device and visual information presented using a visual display of said communication device.

129. (Previously Presented) The system of claim 126 wherein said multimedia prompts comprise a combination of aural segments presented using an audio transducing mechanism and visual information presented using a visual display.

130. (Canceled)

131. (Previously Presented) The system of claim 126 further comprising the step of storing said obtained_multimedia information onto said communication device to provide access to said obtained multimedia information substantially independent from said interactive voice response session.

132. (Previously Presented) The system of claim 126 further comprising the step of selectively forwarding said multimedia information to another communication device.